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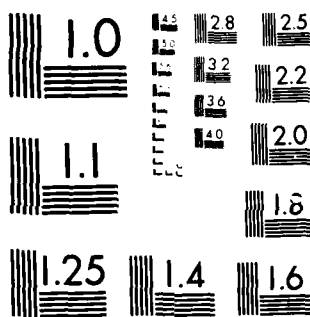
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FOREWORD

This directory lists research publications produced by the Naval Environmental Prediction Research Facility (NEPRF) since the command was established in 1971. Abstracts of the last calendar year's publications also are provided.

The following identification information is given:

- (1) Report number assigned by NEPRF
- (2) Government accession (AD) number where assigned
- (3) Date of publication
- (4) The publication's title, author(s), and number of pages

Publications are listed in sequence by type (see key to letter prefixes on first page of listings), report number, and year published.

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This seventh Edition of January 1986 incorporates
and supersedes all previous listings/editions

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Report Number	AD Number	Report Date	Title -- Author(s) -- Pages
TP 1-71	739-702	Dec 1971	Large-Scale 'Turnover' in the Oceans -- S. Larsen, D. Dale, T. Laevastu -- 36 pp
TP 1-72	739-364	Jan 1972	A Summary of the U.S. Navy Program and FY 1971 Progress in Weather Modification and Control -- Environmental Prediction Research Facility -- 72 pp
TP 2-72	738-847	Jan 1972	The Effects of Oceanic Fronts on Properties of the Atmospheric Boundary Layer -- T. Laevastu, K. Rabe, G. Hamilton -- 54 pp
TP 3-72*	745-759	Mar 1972	A Description of the EPRF Hydrodynamical-Numerical Model -- T. Laevastu, K. Rabe -- 58 pp
TP 3A-72	745-760	Mar 1972	Appendices to ENVPREDRSCHFAC Technical Paper No. 3-72 Entitled A Description of the EPRF Hydrodynamical-Numerical Model -- Environmental Prediction Research Facility -- 34 pp
TP 4-72	746-451	Jul 1972	Numerical Modeling of the Growth of Ice Crystals, Graupel, and Hail -- E. Hindman, D. Johnson -- 56 pp
TP 5-72	746-130	May 1972	Geographic and Monthly Variation of Rapid Intensification and Low-Latitude Weakening of Tropical Cyclones of the Western North Pacific Ocean -- S. Brand -- 36 pp
TP 6-72	746-131	May 1972	Changes in the Characteristics of Typhoons Crossing the Philippines -- S. Brand, J. Blelloch -- 38 pp
TP 7-72*	746-880	Jul 1972	Speed of Tropical Storms and Typhoons After Recurvature in the Western North Pacific Ocean -- L. Burroughs, S. Brand -- 43 pp
TP 8-72	751-579	Jun 1972	The Mean Winds of the Upper Troposphere Over the Central and Eastern Pacific -- J. Sadler -- 29 pp

Listed publications are identified by the following letter prefixes:

AR -- Applications Report
 CPN -- Computer Programming Note
 CR -- (NEPRF) Contractor Report
 TM -- Technical Memorandum
 TN -- Technical Note
 TP -- Technical Paper
 TR -- Technical Report

* indicates Out of Print

Report Number	AD Number	Report Date	Title -- Author(s) -- Pages
TP 9-72*	522-652L	Sep 1972	The Validity of Forecasts of Ballistic Wind and Density for Fleet Ballistic Missile Systems, 1971-1972 Spring, Fall and Winter Case Studies: Eurasia and Eastern Test Range -- D. Schertz, P. Lowe -- 81 pp
TP 10-72	761-620	Sep 1972	A Numerical Study in Optimum Track Ship Routing Climatology -- F. Nagle -- 174 pp
TP 11-72*	524-343L	Dec 1972	The Effects of Subthermocline Ducts on the Propagation of Sound -- T. Laevastu, P. Wolff, -- 50 pp
TP 12-72	907-418	Dec 1972	Monsoon Meteorology, by Colin S. Ramage; A Digest for Africa and Adjoining Indian Ocean Waters -- L. Brody -- 80 pp
TP 13-72*	757-328	Oct 1972	A Study of Numerical Simulation of Maritime Fog -- D. Feit -- 46 pp
TN 1*	---	Apr 1972	Computation of Flushing and Other Pollution Problems in Pearl Harbor with Hydrodynamical-Numerical (HN) Models -- Environmental Prediction Research Facility -- 21 pp
TN 2	776-231	Apr 1972	Coastal Sea-Air Interactions and the Extent of Coastal Influence -- Environmental Prediction Research Facility -- 26 pp
TN 3	776-226	Apr 1972	A Description of Linear and Nonlinear Computational Instability -- D. Haney -- 11 pp
TN 4	776-227	Jun 1972	Estimating Wind Speed Changes at Land/Sea Boundaries -- R. Cormier -- 10 pp
TN 5	776-228	Jun 1972	Visibility Calculations for Microphysical Computer Models -- D. Johnson -- 29 pp
TN 6	776-229	Jul 1972	A Bibliography of Selected Publications on Mediterranean Meteorology -- O. Haney -- 33 pp
CPN 1	A-011-119	Jan 1972	NODCXBT Subroutine for CDC 1604 -- K. Rabe -- 6 pp
CPN 2	A-012-938	Jan 1972	NODCBCD Subroutine for CDC 1604 -- K. Rabe -- 5 pp
CPN 3	A-011-409	Jan 1972	Basic Zoom Program - Extraction of a Portion of Hemispheric Analyses and Interpolation to a New Grid of Desired Size, Location, and Orientation -- G. Wiese -- 32 pp
CPN 4	A-011-410	Sep 1972	STATPROG Subroutines for CDC 1604 -- C. Simpson -- 22 pp

Report Number	AD Number	Report Date	Title -- Author(s) -- Pages
TR B2-0272-001(CSU)*	741-717	Feb 1972	Diagnostic Study of the Planetary Boundary Layer over the Oceans -- W. Gray (Colorado State University) -- 99 pp
TR S1-0972-002(SRI)	757-814	Sep 1972	Further Development of Objective Methods for Registering Landmarks and Determining Cloud Motions from Satellite Data -- D. Wolf, R. Endlich, D. Hall (Stanford Research Institute) -- 82 pp
TP 1-73	758-007	Jan 1973	The 1972 Typhoon Analog Program (TYFOON-72) -- J. Jarrell, R. Wagoner -- 44 pp
TP 2-73	764-859	Mar 1973	Tropical Cyclones of the North Indian Ocean -- J. Sadler, R. Gidley -- 62 pp
TP 3-73	766-797	Mar 1973	The Low-Level Structure of Weak Tropical Waves - A Preliminary Report -- R. Fett, R. Nagle, W. Mitchell -- 26 pp
TP 4-73	767-031	Jun 1973	The Typhoons of October 1970 in the South China Sea: Intensification, Decay and Ocean Interaction -- C. Ramage -- 49 pp
TP 5-73	767-030	Jun 1973	State of the Sea Around Tropical Cyclones in the Western North Pacific Ocean -- S. Brand, J. Blelloch, D. Schertz -- 32 pp
TP 6-73	767-934	Sep 1973	Oceanic Fog--A Numerical Study -- E. Barker -- 74 pp
TP 7-73*	771-379	Sep 1973	Handbook for Forecasters in the Bay of Bengal -- M. Cuming -- 170 pp
TP 8-73	769-538	Oct 1973	Changes in the Characteristics of Typhoons Crossing the Island of Taiwan -- S. Brand, J. Blelloch -- 21 pp
TP 9-73	776-232	Dec 1973	The Evaluation of Hong Kong Harbor as a Typhoon Haven -- D. Mautner, S. Brand -- 130 pp
TP 10-73	775-616	Dec 1973	Potential Cumulus Rainfall Modification--Panama Canal Zone -- P. Lowe -- 18 pp
TN 7	772-085	Sep 1973	Computation of Tidal Currents in the Vicinity of S. Stefano Island -- K. Rabe -- 24 pp
TN 8	772-093	Nov 1973	Coastal Sea-Air Interactions and the Extent of Coastal Influence -- T. Laevastu -- 32 pp
TN 9	772-094	Nov 1973	A Model of Circulation and Dispersion in Pearl Harbor -- S. Larson -- 32 pp
CPI 5	A-011-411	Jan 1973	Mediterranean Sea-Surface Temperature Analysis Program - MEDSST -- A. Anderson, S. Larson, L. I'Anson -- 121 pp

Report Number	AD Number	Report Date	Title -- Author(s) -- Pages
CPN 6	A-011-412	Jan 1973	Program BTREPORT -- A. Anderson, S. Larson -- 80 pp
CPN 7	A-011-413	Feb 1973	Mediterranean Mixed Layer Depth Analysis Program - MEDMLD -- A. Anderson -- 62 pp
CPN 8	A-011-414	Feb 1973	The WAVE32 Program -- S. Larson, A. Anderson -- 59 pp
CPN 9	A-011-415	Feb 1973	The MLDZOOM Program -- S. Larson, A. Anderson -- 34 pp
CPN 10	A-035-170	Jul 1973	Ocean Climatology Extraction and Adjustment Program for the Mediterranean Program SOVEL -- T. Laevastu -- 22 pp
CPN 11	A-011-416	Nov 1973	Program GRAPHIC -- C. Simpson, D. Johnson -- 36 pp
CPN 12	A-011-417	Dec 1973	Subroutine SKEWTLP -- J. Ficke -- 12 pp
TR S1-0673-003(ESC)*	767-026	May 1973	Satellite Observations of Anomalous Local Wind Events in the Mediterranean Region -- J. Meneely, E. Merritt (Earth Satellite Corporation) -- 138 pp
TR S1-0873-004(ESC)	770-208	Aug 1973	The NIMBUS 5 ESMR and its Application to Storm Detection -- R. Sabatini, E. Merritt (Earth Satellite Corporation) -- 51 pp
TR 1-73 (ODSI)	770-207	Sep 1973	Extending the Computerized Typhoon/Tropical Storm Prediction Program (Typhoon 72) Toward Seven Days -- (Ocean Data Systems, Inc.) -- 115 pp
TR 2-73 (CSC)	773-964	Nov 1973	Organizational Structures for Constant Resolution Earth Data Bases -- P. Beaudet, F. Chan, L. Goldshlak (Computer Sciences Corporation) -- 190 pp
TR 3-73 (ARA)	774-524	Sep 1973	Development of Digital Enhancement Techniques Applicable to Direct Readout (APT) Meteorological Satellite Images -- I. Tamches, N. Kelknap (Applied Research Associates, Inc.) -- 123 pp
TP 1-74	774-683	Jan 1974	Tropical Cyclone Movement Forecasts Based on Observations from Satellites -- R. Fett, S. Brand -- 70 pp
TP 2-74	777-429	Mar 1974	Using Helicopters to Clear Fog: A Numerical Study -- D. Johnson, E. Barker, P. Lowe -- 38 pp
TP 3-74	777-958	Feb 1974	A Numerical Simulation of Warm Fog Dissipation by Electrically Enhanced Coalescence -- P. Tag -- 51 pp

Report Number	AD Number	Report Date	Title -- Author(s) -- Pages
TP 4-74	778-316	Mar 1974	The Computation of Saturation Vapor Pressure -- P. Lowe, J. Ficke -- 27 pp
TP 5-74*	777-406	Mar 1974	A Three-Parameter Model for Limited Area Forecasting -- L. Bengtsson -- 112 pp
TP 6-74	A-000-267	Apr 1974	An Evaluation of the Harbors of Kaohsiung and Chilung (Keelung), Taiwan as Typhoon Havens -- M. Brown -- 108 pp
TP 7-74	781-259	May 1974	A Numerical Study of Clearing Warm Fog by Using Hygroscopic Seeding in Conjunction with Helicopter Downwash -- P. Tag -- 40 pp
TP 8-74	781-324	May 1974	Cost Effectiveness of Typhoon Forecasts Improvements -- S. Brand, J. Blelloch -- 31 pp
TP 9-74	782-364	May 1974	A Role of the Tropical Upper Tropospheric Trough in Early Season Typhoon Development -- J. Sadler (University of Hawaii) -- 54 pp
TP 10-74	785-245	Jul 1974	Computation of Real-Time Currents off Southern California with Multi-Layer Hydrodynamical-Numerical Models -- T. Laevastu, G. Hamilton -- 72 pp
TP 11-74	786-347	Aug 1974	A Tropical Cyclone Analog Program for the North Indian Ocean -- S. Brand, J. Long, J. Blelloch, G. Hamilton -- 20 pp
TP 12-74	A-000-088	Aug 1974	Monsoonal Influences on the Annual Variation of Tropical Cyclone Development -- C. Ramage (University of Hawaii) -- 34 pp
TP 13-74	786-699	Aug 1974	The Effect of Utilizing Empirically Derived Values of Coalescence Efficiency in a Microphysical Cloud Model -- P. Tag -- 38 pp
TP 14-74	787-481	Sep 1974	Mesoscale Feedback from the Ocean to the Atmosphere in Coastal and Oceanic Frontal Regions -- T. Laevastu, G. Hamilton -- 46 pp
TP 15-74	A-004-620	Oct 1974	Description of the Optimized EPRF Multi-Layer Hydrodynamical-Numerical Model -- R. Bauer -- 66 pp
TP 16-74	A-001-271	Oct 1974	A Tropical Cyclone Analog Program for the Southwest Indian Ocean -- S. Brand, J. Blelloch, J. Long -- 20 pp
TN 10	778-609	Jan 1974	A Vertically Integrated Hydrodynamical-Numerical Model (W. Hansen Type): Model Description and Operating/Running Instructions -- Environmental Prediction Research Facility -- 69 pp

Report Number	AD Number	Report Date	Title -- Author(s) -- Pages
TN 11	778-619	Jan 1974	A Multilayer Hydrodynamical-Numerical Model (W. Hansen): Model Description and Operating/Running Instructions -- T. Laevastu -- 60 pp
TN 12	778-610	Jan 1974	Computation of Tides, Currents and Dispersal of Pollutants in Lower Bay and Approaches to New York with Fine and Medium Grid Size Hydrodynamical-Numerical Models -- T. Laevastu, M. Clancy, A. Stroud -- 57 pp
TN 13	778-617	Jan 1974	Computation of Tides, Currents and Dispersal of Pollutants in the New York Bight from Block Island to Atlantic City with Large Grid Size, Single and Two-Layer Hydrodynamical-Numerical Models -- T. Laevastu, R. Callaway, A. Stroud, M. Clancy -- 84 pp
TN 14	777-048	Mar 1974	Summaries and Abstracts of Tropical Publications of the Navy Weather Research Facility and Environmental Prediction Research Facility, 1968 to Feb 1974 -- Environmental Prediction Research Facility -- 20 pp
TN 15	778-618	Mar 1974	Typhoon and Tropical Storm Intensity Forecasts for 24, 48 and 72 Hour Using Statistical Regression Equations -- R. Elsberry, G. Coltrane, P. Krueger -- 26 pp
TN 16	779-005	Apr 1974	A Fine Mesh Sea-Level Pressure Analysis Scheme Incorporating Effects of Elevation and Terrain -- L. Brody -- 31 pp
CPN 13	A-035-169	Mar 1974	Users Guide to UPDATE -- J. Long -- 16 pp
CPN 14	787-480	Sep 1974	Users Guide for Direct Readout Data Converter (DRDC) -- G. Hunolt -- 127 pp
CPN 15	A-005-310	Sep 1974	Program COATEM -- B. van der Bijl (Compass Systems, Inc.) -- 17 pp
CPN 16	A-005-311	Sep 1974	Program TRUWIND -- B. van der Bijl (Compass Systems, Inc.) -- 7 pp
CPN 17	A-005-312	Sep 1974	Program ROGMAP -- R. Bauer, B. van der Bijl (Compass Systems, Inc.) -- 20 pp
CPN 18	A-005-321	Sep 1974	A Ray Trace Program Package for the CDC 1604 Computer -- B. van der Bijl (Compass Systems, Inc.) -- 36 pp
CPN 19	A-005-322	Oct 1974	Program PLOTS (HN Model Pen Plots) -- R. Bauer, B. van der Bijl (Compass Systems, Inc.) -- 50 pp

Report Number	AD Number	Report Date	Title -- Author(s) -- Pages
TR 1-74 (ERT)*	A-001-300	Jan 1974	Oceanographic Studies Using Satellite Data: Detection of Near-Shore Phenomena in ERTS Imagery -- C. Bowley, J. Barnes (Environmental Research & Technology, Inc.) -- 121 pp
TR 2-74 (SRI)	779-331	Nov 1973	Objective Methods for Determining Cloud Motions from Satellite Data -- D. Hall, F. Tomlin, D. Wolf (Stanford Research Institute) -- 45 pp
TR 3-74 (ODSI)*	780-423	Apr 1974	Survey of Pacific Theatre Satellite Data Users -- W. Hubert (Ocean Data Systems, Inc.) -- 100 pp
TR 4-74 (ODC)*	780-772	Mar 1974	Objective Methods for Locating the Center of Tropical Storms -- D. Dartt, M. Ulstad, R. Weinberg (Control Data Corporation) -- 16 pp
TR 5-74 (ESC)	783-547	May 1974	The Application of the NIMBUS 5 ESMR to Sea Surface Wind Determination -- R. Sabatini (Earth Satellite Corporation) -- 80 pp
TR 6-74 (ERT)*	A-001-092	Jun 1974	Mapping of Sea Surface Temperature by the NOAA-2 Satellite -- J. Cogan, J. Willand (Environmental Research & Technology, Inc.) -- 72 pp
TR 7-74 (ODSI)	787-021	Jul 1974	Survey of Atlantic Theatre Satellite Data Users -- W. Hubert (Ocean Data Systems, Inc.) -- 112 pp
TP 1-75	A-008-346	Jan 1975	Preliminary Investigation of the Monthly and Seasonal Variation of Total Mass of the Atmosphere of the Northern Hemisphere and its Possible Use as a Partial Measure of Water Vapor Content Change of the Atmosphere -- W. Rudloff, T. Laevastu, J. Harding, S. Larson, G. Britton -- 17 pp
TP 2-75	A-006-255	Jan 1975	An Investigation of Interactions Between Double Clouds Using a Two-Dimensional Numerical Model -- W. Sweet, P. Lowe -- 110 pp
TP 3-75	A-007-301	Feb 1975	Summary Report of Hydrodynamical-Numerical (HN) Model Workshop and AGU Topical Meeting: Hydrodynamical-Numerical Models for Coastal and Open Ocean Areas -- T. Laevastu -- 93 pp
TP 4-75	A-008-158	Mar 1975	A Maritime Boundary Layer Model for the Prediction of Fog -- E. Barker -- 51 pp
TP 5-75	A-024-271	Nov 1975	Handbook for Forecasters in the Mediterranean; Weather Phenomena of the Mediterranean Basin; Part 1: General Description of the Meteorological Processes -- E. Reiter -- 344 pp

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TP 6-75	A-009-530	Mar 1975	The Navy's Analog Scheme for Forecasting Tropical Cyclone Motion over the Northeastern Pacific Ocean -- J. Jarrell, C. Mauck, R. Renard -- 27 pp
TP 7-75	A-010-792	Mar 1975	Monthly Mean Evaporation and Surface Winds over the Northern Hemisphere Oceans and Their Year-To-Year Variations -- S. Larson, T. Laevastu -- 50 pp
TP 8-75	A-010-122	Mar 1975	A 26-Year Time Series of Monthly Mean Winds Over the Oceans: Part I - A Statistical Verification of Computed Surface Winds Over the North Pacific and North Atlantic -- S. Larson -- 89 pp
TP 9-75	A-011-817	May 1975	A Statistical and Spectral Analysis of the Air-Sea Interactions at OWS NOVEMBER -- K. Rabe, R. Bourke -- 89 pp
TP 10-75	A-010-123	Apr 1975	A 26 Year Time Series of Monthly Mean Winds Over the Ocean: Part II - Monthly Anomalies at Selected Points in the North Pacific -- S. Larson -- 104 pp
TP 11-75	---	---	Unpublished
TP 12-75	A-012-369	Apr 1975	Further Development of a 3-7 Day Typhoon Analog Forecast Model for the Western Pacific -- W. Yogi, J. Long, J. Steuckert (Ocean Data Systems, Inc.) -- 37 pp
TP 13-75	A-010-121	May 1975	An Evaluation of the Harbors of Subic Bay and Manila, Republic of the Philippines, as Typhoon Havens -- J. Douglass -- 115 pp
TP 14-75	A-011-818	May 1975	Classification and Analysis/Forecasting of Near-Surface Ocean Thermal Structure -- T. Laevastu -- 34 pp
TP 15-75	A-012-348	Jun 1975	An Evaluation of the Harbor of Yokosuka, Japan as a Typhoon Haven -- R. Graff -- 100 pp
TP 16-75	A-011-057	Mar 1975	Tropical Cyclone Genesis in the Western North Pacific -- W. Gray (Colorado State University) -- 66 pp
TP 17-75	A-014-100	Jul 1975	An Evaluation of Sasebo Harbor, Japan as a Typhoon Haven -- D. Rudolph -- 115 pp
TP 18-75	A-020-304	Oct 1975	Island Barrier Effects on Sea State and Atmospheric Moisture as Detected by a Numerical Wave Model and Sensors of the Defense Meteorological Satellite Program (DMSP) -- R. Fett, K. Rabe -- 67 pp
TP 19-75	A-018-847	Nov 1975	An Evaluation of Apra Harbor, Guam as a Typhoon Haven -- M. Brown, S. Brand -- 79 pp

Report Number	AD Number	Report Date	Title -- Author(s) -- Pages
TP 20-75	A-021-213	Nov 1975	Objective Analysis Technique in Sigma Coordinates -- D. Schiessl -- 150 pp
TP 21-75	A-025-087	Dec 1975	An Evaluation of the Harbors of Buckner Bay and Naha, Okinawa as Typhoon Havens -- D. Rudolph, F. Blake, S. Brand, J. Bleiloch -- 90 pp
TP 22-75	A-019-307	Dec 1975	An Evaluation of the Harbors of Inchon, Pusan and Chinhae, Republic of Korea, as Typhoon Havens -- D. Rudolph -- 130 pp
TP 23-75	A-019-312	Dec 1975	An Evaluation of the Harbors of Kwakuni and Kure, Japan as Typhoon Havens -- J. Manning -- 82 pp
TP 24-75	A-020-640	Dec 1975	An Evaluation of the Numazu Operating Area and Kagoshima Harbor, Japan as Typhoon Havens -- R. Wixom -- 125 pp
TN 17	A-008-156	Feb 1975	Surface Currents Deduced from Ship Drift at the Periphery of Costa Rica Dome -- T. Laevastu -- 7 pp
TN 18	A-010-234	Mar 1975	An Evaluation of Available Wave Refraction Models for Use on the CDC 3100 Computer -- K. Rabe -- 30 pp
TN 19	A-010-546	Apr 1975	Puerto Rico Operating Area Search and Rescue Program - USAR -- K. Rabe -- 60 pp
TN 20*	A-010-791	Apr 1975	Direct Solution of Elliptic Equations by Block Cyclic Reduction and Factorization -- T. Rosmond, F. Faulkner -- 34 pp
TN 21	A-013-192	Jun 1975	NVA Upper Air Temperature and Wind Analysis for a 12-Level European Area Model -- A. Groll -- 53 pp
TN 22*	A-014-083	Aug 1975	Interrelationships between Tropical North Pacific Atmospheric Circulation, Explosive Volcanism, Sea Surface Temperature and Western North Pacific Tropical Storms and Typhoons -- J. Harding, S. Larson -- 25 pp
TN 23	---	---	Unpublished
CPN 20	A-020-045	May 1975	A Cloud Advection Model -- R. Nagle -- 113 pp
CPN 21	A-008-841	Mar 1975	The Delaware-Dobson Wave Refraction Model -- K. Rabe -- 47 pp
CPN 22	A-013-191	Mar 1975	Subroutines for Direct Solution of Three-Dimensional Elliptic Equations -- T. Rosmond -- 39 pp
CPN 23*	A-013-190	Apr 1975	Subroutines for the Direct Solution of Two-Dimensional Elliptic Equations -- T. Rosmond -- 32 pp

Report Number	AD Number	Report Date	Title -- Author(s) -- Pages
TR 1-75	---	---	Unpublished
TR 2-75 (CSC)	A-010-232	Apr 1975	Feasibility Study of a Quadrilateralized Spherical Cube Earth Data Base -- F. Chan, E. O'Neill (Computer Sciences Corporation) -- 114 pp
TR 3-75 (ESC)	A-010-541	Feb 1975	Sea Surface Wind Speed Estimates from the NIMBUS 5 ESMR -- R. Sabatini (Earth Satellite Corporation) -- 55 pp
TR 4-75* (MII)	---	Feb 1975	Techniques for Processing VTPR Side-Scan Radiances Including Diagnosis for the Clear-Column Radiance Components -- M. Holl (Meteorology International Incorporated) -- 93 pp plus Appendix A
TR 5-75* (UD)	A-014-320	May 1975	Interpretation of Structures Over Oceanic Regions in DMSP Data -- K. Szekiolda (University of Delaware) -- 41 pp
TR 6-75 (ESC)	A-009-850	Apr 1975	Applications of the NIMBUS 5 ESMR to Rainfall Detection Over the Oceans and to Sea-Ice Detection -- R. Sabatini, D. Hlavka, R. Arcese (Earth Satellite Corporation) -- 77 pp
TR 7-75* (ERT)	A-014-427	May 1975	Mapping of Sea Surface Temperature by the DMSP Satellite -- J. Cogan, J. Willand (Environmental Research & Technology, Inc.) -- 82 pp
TR 8-75 (SRI)	A-021-173	Oct 1975	Correlation of Cloud Brightness and Radiance with Precipitation Intensity -- R. Blackmer (Stanford Research Institute) -- 134 pp
TR 9-75 (SRI)	A-021-772	Oct 1975	Implementation of the SRI Objective Cloud Tracking System at EPRF -- D. Hall, D. Wolf (Stanford Research Institute) -- 62 pp
TR 10-75 (SRI)	A-020-689	Oct 1975	Use of Infrared Radiance Measurements in Dynamic Analysis -- P. Davis (Stanford Research Institute) -- 76 pp
TR 11-75* (CDC)	A-022-650	Oct 1975	Objective Tropical Storm Parameters from Satellite Cloud Patterns -- D. Dartt (Control Data Corporation) -- 23 pp + Figures
TR 12-75 (MII)	A-023-908	Dec 1975	Tests and Evaluations of CLRX, the Diagnosis of Clear Column Radiances -- M. Holl (Meteorology International Incorporated) -- 109 pp
TR 13-75* (ODSI)	A-024-736	Nov 1975	Data Assimilation Restorative-Iterative Model (RIMOD) -- P. Kesel, R. Welck (Ocean Data Systems, Inc.) -- 154 pp

Report Number	AD Number	Report Date	Title -- Author(s) -- Pages
TP 1-76	A-023-676	Mar 1976	A Tropical Cyclone Analog Program for the Southwest Pacific Ocean and Australian Region -- S. Brand, J. Blelloch -- 23 pp
TP 2-76	A-025-456	Feb 1976	Tropical Cyclone Initiation by the Tropical Upper Tropospheric Trough -- J. Sadler (University of Hawaii) -- 104 pp
TP 3-76	A-027-533	May 1976	An Evaluation of the Harbor of Cebu, Republic of the Philippines, as a Typhoon Haven -- B. Hassell -- 74 pp
TP 4-76	A-027-532	May 1976	Cross-Equatorial Interactions in the Development of a Winter Typhoon: Nancy 1970 -- C. Guard (University of Hawaii) -- 46 pp
TP 5-76	A-034-188	Jun 1976	Typhoon Havens Handbook for the Western Pacific and Indian Oceans -- S. Brand, J. Blelloch -- 256 pp
TP 6-76	A-027-410	May 1976	Clearing Fog by Seeding with Charged Water Drops: A Numerical Study -- P. Tag -- 49 pp
TP 7-76	A-031-174	Jul 1976	The Climatology and Forecasting of Eastern North Pacific Ocean Tropical Cyclones -- R. Renard, W. Bowman -- 79 pp
TP 8-76	A-029-717	Aug 1976	A Wind Wave Tropical Cyclone Model for the Western North Pacific Ocean -- S. Brand, K. Rabe, T. Laevastu -- 21 pp
TN 24	A-021-638	Feb 1976	A Generalized Version of the Fields by Information Blending (FIB) Technique -- B. Maxwell -- 86 pp
CPN 24	A-037-226	Jan 1976	Calibration, Earth Location and Mapping Programs for the NIMBUS-5 Electronically Scanning Microwave Radiometer (ESMR) -- R. Nagle -- 134 pp
TR 1-76 (SRI)	---	Dec 1975	Analysis of Radio-Radar Propagation Conditions Using Satellite-Viewed Cloud Cover and Rawinsonde Observations -- R. Blackmer (Stanford Research Institute) -- 62 pp
TR 2-76* (CDC)	A-027-412	Jan 1976	A Pilot Analysis of the Curvature of Extratropical Storms -- D. Dartt (Control Data Corporation) -- 21 pp + Figures
TR 3-76 (CSC)	A-026-294	May 1976	Extended Studies of a Quadrilateralized Spherical Cube Earth Data Base -- E. O'Neill, R. Laubscher (Computer Sciences Corporation) -- 114 pp
TR 4-76 (MII)	A-034-291	Jan 1976	Development of the Capability for Surface-Wind Analysis on a Portable Grid (FIB/UV-PORT) -- B. Mendenhall (Meteorology International Incorporated) -- 40 pp + Appendices A and B

Report Number	AD Number	Report Date	Title -- Author(s) -- Pages
TR 5-76*	---	Mar 1976	Program Development for Reduction of Meteorological Satellite Data to Vertical Temperature and Humidity Profiles -- (Ocean Data Systems, Inc.)-- I, 197 pp; II, 332 pp
TR 6-76 (ESC)	A-046-629	Sep 1976	A Preliminary Study of the Applicability of NIMBUS 6 ESMR to Sea-Surface Wind Speed Estimates -- R. Sabatini, L. Heitkemper, D. Hlavka (Earth Satellite Corporation) -- 45 pp
TR 7-76* (ERT)	---	Nov 1976	An Algorithm to Retrieve Water Vapor Information from Satellite Measurements -- R. Crane (Environmental Research & Technology, Inc.) -- 37 pp
AR 77-01	A-046-542	Mar 1977	Meteorological Phenomena of the Arabian Sea -- L. Brody -- 196 pp
AR 77-02	A-046-589	May 1977	The Regeneration of South China Sea Tropical Cyclones in the Bay of Bengal -- J. Sadler, B. Kilonsky (University of Hawaii) -- 24 pp
AR 77-03	B-024-969	Jan 1977	Navy Tactical Applications Guide. Volume I Techniques and Applications of Image Analysis -- R. Fett, W. Mitchell -- 110 pp
TR 77-01*	A-048-168	Jul 1977	Tropical Cyclone Research by Data Compositing -- W. Gray, W. Frank (Colorado State University) -- 70 pp
TR 2-77*	---	Apr 1977	Development of a Synoptic Climatology of Tropospheric Refractive Conditions for the Eastern Pacific Ocean Off the West Coast of the United States Task One and Task Two -- P. Kalinyak (Meteorology International Incorporated) -- 174 pp
TR 77-03	A-055-162	Sep 1977	The Environment of South Korea and Adjacent Sea Areas -- M. Nestor -- 284 pp
TR 77-04	A-070-305	Jan 1979	Navy Tactical Applications Guide. Volume II Environmental Phenomena and Effects -- R. Fett, P. LaViolette, M. Nestor, J. Nickerson, K. Rabe -- 161 pp
TR 77-05	A-056-586	Nov 1977	An Analysis of Western North Pacific Tropical Cyclone Forecast Errors -- J. Jarrell, S. Brand, D. Nicklin -- 41 pp
TR 77-06	---	Sep 1977	Development of a Synoptic Climatology of Tropospheric Refractive Conditions for the Eastern Pacific Ocean Off the West Coast of the United States, Task Three: The Assessment of Refractive Structures from Typical Synoptic Patterns -- M. Cuming, F. Caton, P. Kalinyak (Meteorology International Incorporated) -- 82 pp

Report Number	AD Number	Report Date	Title -- Author(s) -- Pages
TR 77-07*	---	Mar 1976	Evaluation of Objective Parameters Derived from Concentric Cloud Parameters -- D. Penlt
TR 77-08	A-053-620	Jul 1977	Evaluation of the FIB Methodology for Application to Cloud Motion Wind Data -- W. Viezee, D. Wolf, R. Endlich (SKI International) -- 98 pp
SRI Rept ERO 4854	A-053-619	Mar 1977	Application of the SRI Automatic Cloud-Tracking System to SMS-GOES Data -- D. Wolf, D. Hall, R. Endlich (Stanford Research Institute) -- 60 pp
MI Rept M-225	---	Sep 1977	Methods and Programs to Utilize Satellite Indirect Soundings in Environmental Analysis and Prediction -- M. Holl (Meteorology International Incorporated) -- 67 pp
TM 77-01	---	Jun 1977	Application of an Array Processor in Satellite Image Processing -- P. Zeleny, R. Nagle -- 20 pp
TR 78-01	A-060-077	Jun 1978	New Results of Tropical Cyclone Research from Observational Analysis -- W. Gray, W. Frank (Colorado State University) -- 108 pp
TR 78-02	A-060-910	Jul 1978	Extratropical Storm Evolution from Tropical Cyclones in the Western North Pacific Ocean -- S. Brand, C. Guard -- 24 pp
TR 78-03	A-067-079	Dec 1978	Level Assignment in the Assimilation of Satellite Cloud-Tracked Winds -- D. Lee -- 74 pp
TR 78-04	A-066-742	Dec 1978	Use of a Second-Moment Turbulence Closure Model for Computation of Refractive Index Structure Coefficients -- S. Burk -- 60 pp
CR 78-01	A-065-545	Dec 1978	Tropical Cyclone Strike Probability Forecasting -- J. Jarrell (Science Applications, Inc.) -- 47 pp
CR 78-02	A-065-929	Oct 1978	Wind Characteristics over Subic Bay, Philippine Island, During Typhoon Passage - Determination by Physical Modeling in a Meteorological Wind Tunnel -- H. Woo, J. Cermak, J. Lou (Colorado State University) -- 102 pp
CR 78-03	A-070-373	Dec 1978	Literature Survey of Marine Aerosol Research -- J. Podzimek -- 248 pp

Report Number	AD Number	Report Date	Title -- Author(s) -- Pages
TR 79-01	A-075-524	Jun 1979	Monthly Climatology for Evaporation Duct Occurrence in the North Atlantic Ocean -- W. Sweet -- 40 pp
TR 79-02	A-075-456	Jul 1979	Summary of an EASTPAC Refractive Structure Climatology -- W. Sweet -- 30 pp
TR 79-03	A-074-275	Jun 1979	Modeling the Refractive Index Structure Parameter in the Marine Planetary Boundary Layer -- S. Burk, A. Goroch, A. Weinstein, H. Panofsky -- 58 pp
TR 79-04	A-074-812	Jul 1979	A Preliminary Analysis of Mesoscale Effects of Topography on Tropical Cyclone-Associated Surface Winds -- S. Brand, R. Chambers, H. Woo, J. Cermak, J. Lou, M. Danard -- 42 pp
TR 79-05	A-074-809	Aug 1979	Airborne Expendable Bathythermograph (AXBT) Observations Immediately Before and After Passage of Typhoon Phyllis in August of 1975 -- CAPT W. Schramm, USN -- 48 pp
TR 79-06	A-077-727	Aug 1979	Winter Shamal in the Persian Gulf -- T. Perrone -- 180 pp
CR 79-01	A-073-098	Mar 1979	The Application of Measures of Synoptic Similarity to the Evaluation and Development of Atmospheric Prediction Models: Task 1 -- M. Holl, M. Cuming (Meteorology International, Inc.) -- 90 pp
CR 79-02	A-074-337	Jun 1979	TWINDX: A Planetary Boundary Layer Model for the Winds in Extratropical and Tropical Ocean Areas -- W. Pierson (City College of City University of New York) -- 94 pp
• CR 79-03	A-077-901	Jul 1979	Dynamic Data Assimilation by the Noise Freezing Method -- Y. Sasaki, T. Baxter, J. Goerss (University of Oklahoma) -- 80 pp
CR 79-04	A-076-256	Jul 1979	Dynamical Analysis of Mediterranean Cyclogenesis -- Y. Sasaki, J. McGinley (University of Oklahoma) -- 52 pp
CR 79-05	A-077-902	Jul 1979	Comparative Study of Anomalous Gray-Shade Patterns in DMSP and LANDSAT imagery -- J. Barnes, C. Bowley, A. Bussey, R. Isaacs (Environmental Research & Technology, Inc.) -- 108 pp
CR 79-06	A-078-624	Aug 1979	Tropical Cyclone Origin, Movement and Intensity Characteristics based on Data Compositing Techniques -- W. Gray (Colorado State University) -- 126 pp
CR 79-07	A-080-056	Nov 1979	A Use of Time Series in Improving Weather Forecasting -- Frank D. Faulkner, Craig Comstock, Robert R. Fossum (U.S. Naval Postgraduate School) -- 26 pp

Report Number	AD Number	Report Date	Title -- Author(s) -- Pages
TR 80-01	AD-A083156	Feb 1980	Anomalous Microwave Propagation Assessment in the Lower Troposphere Using a Bulk Meteorological Parameter -- W. Sweet -- 24 pp
TR 80-02	AD-A091665	Jul 1980	Meteorological Factors Affecting Evaporation Duct Height Climatologies -- W. Sweet -- 28 pp
TR 80-03	AD-A091664	Aug 1980	Determination of the Primary Specular Point in the Sun glint Pattern of a Polar-Orbiting Satellite Image -- T. Tsui, R. Fett -- 26 pp
TR 80-04	---	Nov 1980	Frequency of Occurrence of Atmospheric Turbulence Conditions Affecting USMC Modular Universal Laser Equipment (MULE) -- A. Goroch -- 34 pp. Distribution limited to U.S. Government agencies only; test and evaluation; 6 Nov 1980. Other requests for this document must be referred to Naval Weapons Center, China Lake, CA 93555.
TR 80-05	AD-A094280	Oct 1980	Assessment/Forecasting of Anomalous Microwave Propagation in the Troposphere Using Model Output -- W. Sweet -- 40 pp
TR 80-06	AD-A098031	Nov 1980	Frequency of Adverse Weather Conditions Affecting High Energy Laser Systems Operations -- A. Goroch, T. Brown -- 124 pp
TR 80-07	AD-A099591	Mar 1981	Navy Tactical Applications Guide, Volume 3: North Atlantic and Mediterranean Weather Analysis and Forecast Applications - Meteorological Satellite Systems -- R. Fett, G. Stevenson, J. Bates --
TR 80-08	AD-A098124	Dec 1980	An Automatic Cloud Tracking System Based on the Cross-Covariance Method -- D. Lee, R. Nagle -- 62 pp
TR 80-09	AD-A097691	Dec 1980	Comparison of the Marine Index of Refraction Structure Parameter, C_n^2 , Model with Optical Measurements -- A. Goroch -- 36 pp
TR 80-10	AD-A102635	Dec 1980	Regional Forecasting Aids for the Mediterranean Basin (Handbook for Forecasters in the Mediterranean, Part 2) -- L. Brody, M. Nestor -- 178 pp

Report Number	AD Number	Report Date	Title -- Author(s) -- Pages
CR 80-01	AD-A081089	Feb 1980	Deformation of the Marine Inversion and Development of Marine Fog and Stratus Resulting from Warm Water Patches: Numerical Modeling and Verification with Satellite Imagery -- C. Rogers, J. Hanley (Calspan Advanced Technology Center) -- 32 pp
CR 80-02	AD-A082031	Apr 1980	The Application of Measures of Synoptic Similarity to the Evaluation and Development of Atmospheric Prediction Models: Task 2 -- M. Holl, M. Cuming, B. Hawkins (Meteorology International Incorporated (MII)) -- 46 pp
CR 80-03	AD-A091841	Aug 1980	The Eastern Pacific Tropical Cyclone Strike Probability Program (EPSTRKP) -- J. Jarrell (Science Applications, Inc.) -- 30 pp
CR 80-04	AD-A093197	Oct 1980	Optimum Track Ship Routing (OTSR) Applications of the Tropical Cyclone Strike/Wind Probability Program -- D. Chin, K. Nuttall, M. McKim, H. Hamilton, C. Buenafe (Systems and Applied Sciences Corp.) -- 22 pp
CR 80-05	AD-A098094	Dec 1980	Satellite Wind-Profile Techniques -- R. Mancuso, R. Endlich (SRI International) -- 64 pp.
CR 80-06	AD-A097927	Dec 1980	Investigation of the Effect of Low Level Maritime Haze on DMSP VHR and LF Imagery -- R. Isaacs (Atmospheric & Environmental Research, Inc.) -- 125 pp
TR 81-01	AD-B058454L	Mar 1981	Shipboard Radiological Fallout Model (Shipboard Numerical Aid Program (SNAP) No. 6.0) -- R. W. Titus, A. J. Klapp -- 90 pp. Distribution is limited to U.S. Government agencies only. Other requests for this document must be referred to: Commander, Naval Air Systems Command, Department of the Navy, Washington, DC 20361
TR 81-02	AD-B060991	Jul 1981	A Climatology of North Atlantic Effects On Forward Looking Infrared (FLIR) Systems -- B. K. Katz, A. K. Goroch -- 118 pp. Distribution is limited to U.S. Government agencies only. Other requests for this publication must be referred to Commander, Naval Ocean Systems Center, San Diego, CA 92152.
TR 81-03	AD-A104025	Jul 1981	The Atmospheric Transmission Generation System for Satellite Infrared Sounders -- T. J. Kleespies -- 40 pp

Report Number	AD Number	Report Date	Title -- Author(s) -- Pages
TR 81-04	AD-A104892	Aug 1981	Evaluation of a Method for Short-Range Forecasting of Evaporation Duct Heights -- W. A. Sweet -- 40 pp
TR 81-05	AD-A107647	Sep 1981	A Verification Study of the Improved Regional Rapid Analog System (IRRAS) -- L. R. Brody -- 52 pp
TR 81-06	AD-B065213L	Oct 1981	Climatology of Infrared Range in Pacific Ocean Regions of the Northern Hemisphere -- A. K. Goroch, T. Brown -- 36 pp. Distribution is limited to U.S. Government agencies only. Other requests for this publication must be referred to: Commander, Naval Ocean Systems Center, San Diego, CA 92152.
CR 81-01	AD-A0988848	Feb 1981	Survey of Available Systems for Identifying Systematic Errors in Numerical Model Weather Forecasts -- P. A. Harr, W. D. Groscup (Control Data Corporation) -- 94 pp
CR 81-02	AD-A102053	Mar 1981	Further Analysis of Tropical Cyclone Characteristics from Rawinsonde Compositing Techniques -- W. M. Gray (Colorado State University) -- 132 pp
CR 81-03	AD-A102106	Apr 1981	Tropical Cyclone Wind Probability Forecasting (WINDP) -- J. D. Jarrell (Science Applications, Inc.) -- 70 pp
CR 81-04	AD-A102594	Jul 1981	Atlantic Hurricane Strike Probability Program (STRIKPA) -- J. D. Jarrell (Science Applications, Inc.) -- 30 pp
CR 81-05	AD-A108756	Oct 1981	Atlantic Hurricane Wind Probability Forecasting (WINDPA) -- J. D. Jarrell (Science Applications, Inc.) -- 20 pp
CR 81-06	AD-A113651	Nov 1981	Characteristics of Water Vapor Tracked Winds -- F. R. Mosher, T. Stewart (Space Science & Engineering Center, University of Wisconsin-Madison) -- 54 pp

Report Number	AD Number	Report Date	Title -- Author(s) -- Pages
TR 82-01	AD-A112515	Jan 1982	A Climatology of the Refractive Index Structure Function Parameter, C_n^2 , in the North Atlantic Ocean Region -- T. Brown, A. K. Goroch -- 100 pp
TR 82-02	--	--	No listing
TR 82-03	AD-A116101	Jun 1982	Hurricane Havens Handbook for the North Atlantic Ocean -- R. J. B. Turpin, S. Brand -- 282 pp
TR 82-03	AD-A130264	Jun 1983	Hurricane Havens Handbook for the North Atlantic Ocean, CHANGE 1 -- R. J. B. Turpin, S. Brand -- 172 pp
TR 82-04	AD-A121103	Aug 1982	Climatology of Surface Infrared Extinction Coefficients in the North Atlantic Ocean Region -- T. Brown, A. K. Goroch -- 92 pp
TR 82-05	AD-A122034	Oct 1982	A Technique for Predicting Surface Wind Distributions of Tropical Cyclones in the Western North Pacific -- T. Tsui, R. Brody, S. Brand -- 42 pp
TR 82-06	--	Nov 1982	A Comparison of Two Initialization Methods in Data Assimilation -- E. Barker -- 154 pp
CR 82-01	AD-A112823	Jan 1982	Estimation of Vertical Wind Shear from Infrared and Microwave Radiances -- H. Panofsky, J. Cahir, A. Cavalier, F. Gadomski -- 76 pp
CR 82-02	AD-A115027	Jan 1982	Final Report on A.R.A.P.'s Model for the Atmospheric Marine Environment -- W. Lewellen, D. Oliver, R. Sykes -- 178 pp
CR 82-03	AD-A113374	Jan 1982	Time Scales of Systematic Errors in a Numerical Weather Forecast -- P. Harr -- 58 pp
CR 82-04	AD-A115129	Feb 1982	Ocean/Troposphere/Stratosphere Forecast Systems: A State-of-the-Art Review -- R. Elsberry, R. Haney, R. Williams, R. Bogart, H. Hamilton, E. Hinson -- 80 pp
CR 82-05	AD-A114556	Mar 1982	On the Speed of Recurving Typhoons Over the Western North Pacific Ocean -- B. Cheng-Lan, J. Sadler -- 62 pp
CR 82-06	AD-A114532	Apr 1982	Tropical Cyclone Wind Probability Forecasting for the Eastern North Pacific (EPWINDP) -- J. Jarrell -- 18 pp

Report Number	AD Number	Report Date	Title -- Author(s) -- Pages
CR 82-07	AD-A115791	Apr 1982	Shipboard Tropical Cyclone Applications Software System for the Western North Pacific Ocean -- D. Chin -- 38 pp
CR 82-08	--	--	Unpublished
CR 82-09	AD-A120022	Aug 1982	Validation of Bulk Turbulence Modeling in Stable Regimes -- R. Golus, H. Panofsky -- 42 pp
CR 82-10	AD-A121154	Aug 1982	Forecast Aids for Predicting Tropical Cyclone Associated Gusts and Sustained Winds for Cubi Point, Philippines -- J. Jarrell; R. Englebretson -- 18 pp
CR 82-11	AD-A121180	Aug 1982	Forecast Aids for Predicting Tropical Cyclone Associated Gusts and Sustained Winds for Yokosuka, Japan -- J. Jarrell, R. Englebretson -- 20 pp
CR 82-12	AD-A120040	Sep 1982	Wind Probabilities and Tropical Cyclone Readiness Conditions -- J. Jarrell -- 40 pp
CR 82-13	AD-A121130	Sep 1982	Tropical Cyclone Satellite Images in Lagrangian Coordinates -- V. Peterson, S. Uhrich -- 72 pp
CR 82-14	AD-A122908	Dec 1982	Terrain Adjusted Tropical Cyclone Wind Probabilities -- J. Jarrell - 20 pp

Report Number	AD Number	Report Date	Title -- Author(s) -- Pages
TR 83-01	AD-A150097	June 1984*	NTAG Volume 4, Part 1 - Eastern North Pacific Weather Analysis and Forecast Applications.
TR 83-02	AD-A135466	June 1983	Navy Tactical Applications Guide, Operational Environmental Satellites -- R. Fett, W. Bohan, J. Bates, S. Tipton -- 70 pp
TR 83-03	A134412	June 1983	Navy Tactical Applications Guide, Volume 5 Part 1, Indian Ocean (Red Sea/ Persian Gulf) Weather Analysis and Forecast Applications -- R. Fett, W. Bohan, R. Englebretson -- 91 pp
TR 83-04	AD-A126007	Feb 1983	Evaluation of the Tropical Cyclone Spiral Linearization Technique -- S. Swadley -- 44 pp
TR 83-05	AD-A129902	June 1983	Coupled Ocean-Atmospheric Modeling for 3-15 Day Numerical Prediction: A Workshop Report -- T. Rosmond, A. Weinstein, S. Piacsek -- 88 pp
TR 83-06	AD-A134590	Sep 1983	Short-Range Local Forecasting of Coastal Summer Stratus by Statistical Techniques - A Pilot Study -- W. Sweet -- 56 pp
CR 83-01(a)	AD-A126245	Jan 1983	Satellite Moisture Retrieval Techniques Volume 1: Technique Development and Evaluation -- A. Rosenberg, D. Hogan, C. Bowman -- 96 pp
CR 83-01(b)	AD-A126446	Jan 1983	Satellite Moisture Retrieval Techniques Volume 2: Atmospheric Sounding Bibliography -- A. Rosenberg, E. Hutter, J. Horan -- 136 pp
CR 83-02	AD-A128796	Feb 1983	Evaluation of U.S. Navy Tropical Cyclone Storm Surge Requirements in the Western North Pacific and Indian Oceans -- A. Compton -- 138 pp
CR 83-03	AD-A127130	Mar 1983	Tropical Cyclone Wind Probability Forecasting for the North Indian Ocean (WINDPIO) -- J. Jarrell -- 20 pp
CR 83-04	AD-A128749	Apr 1983	Satellite Measurements of Maritime Aerosol Parameters -- M. Griggs -- 32 pp
CR 83-05	AD-A129862	May 1983	Further Developments of the A.R.A.P. Model for the Atmospheric Marine Environment -- W. Lewellen, R. Sykes, and D. Oliver -- 172 pp

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Report Number	AD Number	Report Date	Title -- Author(s) -- Pages
CR 83-06	A134312	Jun 1983	Forecasters Handbook for the Middle East/Arabian Sea -- W. Hubert, A. Hull, D. Morford, R. Englebreton -- 226 p.
CR 83-07	A136146	Oct 1983	Tropical Cyclone Wind Probability Forecasting for the Southern Hemisphere (WINDPSH) -- J. Jarrell -- 20 pp.
CR 83-08	A137846	Dec 1983	Forecast Aids for Predicting Tropical Cyclones Associated Gusts and Sustained Winds for Agana, Hong Kong, Kadena and Misawa -- J. Jarrell, J. Sanders -- 48 pp.
CR 83-09	A139892	Dec 1983	Aerosol Characteristics on the Alboran Sea, October 1982 -- J. Mack, C. Rogers, J. Kile -- 144 pp.
TR 84-01	A141468	Feb 1984	A Spiral Analysis Technique for Monitoring and Predicting Tropical Cyclone Intensity Using Satellite Data -- B. Cook -- 104 pp.
TR 84-02	A141215	Feb 1984	The Use of Satellite Observed Cloud Patterns in Northern Hemisphere 300 mb and 1000/300 mb Numerical Analysis -- S. Swadley -- 86 pp.
TR 84-03	A142212	Apr 1984	Tropical Cyclone Sea-State Probability Model Development and Applications -- J. Jarrell, D. Chin, T. Brown, S. Brand -- 76 pp.
TR 84-04	A144066	May 1984	Rain Rate Climatologies Over Marine Regions -- A. Goroch, T. Brown, M. Vanderhill -- 84 pp.
TR 84-05	B086637L	Jun 1984	Climatology of North Pacific Environmental Effects on Forward Looking Infrared (FLIR) Systems -- B. Katz, A. Goroch -- 70 pp. Distribution is limited to U.S. Government agencies only; administrative/operational use; June 1984. Other requests for this document must be referred to Commander, Naval Ocean System Center, San Diego, CA 92152.

Report Number	AD Number	Report Date	Title -- Author(s) -- Pages
TR 84-06	A144001	Jun 1984	Programming Guide for Shipboard Numerical Aid Programs (SNAP) -- T. Brown -- 32 pp.
TR 84-07	A144752	Jun 1984	Statistical Tropical Cyclone Forecasting Techniques for the Southern Hemisphere -- T. Keenan -- 52 pp.
TR 84-08	--	Nov 1984	Forecasters Handbook for the Southern African Continent and Atlantic/Indian Ocean Transit -- F. Williams et al. -- 325 pp.*
TR 84-09	A146487	Jul 1984	Documentation Guide for Shipboard Numerical Aid Programs (SNAP) -- R. Wimmer, T. Brown -- 62 pp.
TR 84-10	--	Dec 1984	Propagation-Based C ² Displays for Radar Emissions and AAW Force Disposition -- R. Paulus -- 46 pp. Distribution is limited to U.S. Government agencies only; administrative/operational use; December 1984. Other requests for this document must be referred to Commanding Officer, Naval Environmental Prediction Research Facility, Monterey, CA 93943-5106.
CR 84-01	A142216	Mar 1984	Assessing and Displaying the Effects of Elevated Trapping Layers in Support of Navy Command and Control -- P. Petit, H. Hamilton -- 82 pp.
CR 84-02	A144785	May 1984	Setting Hurricane Conditions of Readiness With High Confidence -- G. Kostyschack and J. Jarrell -- 34 pp.
CR 84-03	A145286	Jun 1984	Handbook for Sea Ice Analysis and Forecasting -- W. Stringer, D. Barnett, R. Godin -- 324 pp.
CR 84-04	A144529	Jun 1984	Cloud Bands Structure of Hurricane David, 1979 - A Case Study -- F. Nicholson -- 46 pp.

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Report Number	AD Number	Report Date	Title -- Author(s) -- Pages
CR 84-05	A146667	Jul 1984	Simple Mesoscale Models for Operational Use in Regions of Topographic and Thermal Forcing: Development and Evaluation -- C. Mass -- 86 pp.
CR 84-06	A147555	Sep 1984	Pearl Harbor and South Coast of Oahu Hurricane Haven Study -- R. Gilmore, J. Jarrell -- 32 pp.
CR 84-07	--	Oct 1984	Diagnostic Aids and Analyses for Smaller-Scale Moisture Structure -- J. Cahir, G. Forbes, W. Lottes -- 100 pp.
CR 84-08	A149628	Oct 1984	Varying Structure and Intensity Change Characteristics of Four Western North Pacific Tropical Cyclones -- C. Askue, W. Gray -- 104 pp.
CR 84-09	A156188	Dec 1984	Mean Cloudiness Over the Global Tropics from Satellite Observa- tions -- J. Sadler, B. Kilonsky, L. Oda, A. Hori --
CR 84-10	A153016	Dec 1984	Parameterization of Subgrid-Scale Fluxes in Mesoscale Meteorological Models -- W. Lewellen, R. Sykes, S. Parker -- 122 pp.
CR 84-11	A153085	Dec 1984	Characteristics of North Indian Ocean Tropical Cyclone Activity -- C-S. Lee, W. Gray -- 110 pp.

Report Number	AD Number	Report Date	Title -- Author(s) -- Pages
TR 85-01	A155435	Feb 1985	Navy Tactical Applications Guide, Volume 5, Part 2 Indian Ocean (Arabian Sea/Bay of Bengal) Weather Analysis and Forecast Applications -- R. Fett, W. Bohan, R. Englebretson -- 202 pp.
TR 85-02	--	Jul 1985	An Application of Discriminant Analysis to a Tropical Cyclone Intensification Forecasting Algorithm -- B.J. Cook -- 40 pp.
TR 85-03	--	Oct 1985:	Design Considerations for an Advanced Tropical Cyclone Model -- R. Elsberry, M. Fiorino -- 152 pp.
CR 85-01	A155435	Feb 1985	Assessment of the Performance of an In-Field Gaussian Plume/Puff Model for Overwater Use -- C. Skupniewicz, G. Schacher -- 54 pp.
CR 85-02	A155027	Feb 1985	Accuracy and Operational Use of Medium and Extended Range Numerical Atmospheric Forecasts: A Review -- R. Elsberry, H. Hamilton, P. Petit -- 84 pp.
CR 85-03	A155623	Feb 1985	Medium Range Atmospheric Forecast System: Evaluation Plan -- P. Petit, H. Hamilton, R. Elsberry -- 40 pp.
CR 85-04	A155240	Feb 1985	Medium Range Atmospheric Forecast System: Evaluation Report -- P. Petit, H. Hamilton, R. Elsberry -- 86 pp.
CR 85-05	A155484	Mar 1985	Ship-To-Ship Propagation: Maritime Data Analyses -- J. Manning, J. Dowling, J. Hummel -- 130 pp.

Abstracts of 1985 Publications

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Monterey, CA 93943-5006

TR 85-01, February 1985: Navy Tactical Applications Guide, Volume 5, Part 2
Indian Ocean (Arabian Sea/Bay of Bengal) Weather Analysis and Forecast
Applications -- R. Fett, W. Bohan, R. Englebreton -- 202 pp.

Case studies describing regional environmental analysis and forecast applications based on satellite data and conventional meteorological observations for the Indian Ocean area are presented. Topics include Northeast Monsoon, Southwest Monsoon, coastal zone phenomena, and ocean-atmosphere interaction. The studies provide insights into identifiable patterns of weather development that occur frequently, so that once the basic pattern is recognized at an early stage this information can be used for improved weather analysis and forecasting.

TR 85-02, July 1985: An Application of Discriminant Analysis to a Tropical
Cyclone Intensification Forecasting Algorithm -- B.J. Cook -- 40 pp.

A stepwise screening discriminant analysis is used to develop an algorithm for forecasting tropical cyclone intensification. Some potential predictors used in the analysis are derived from FNOC (Fleet Numerical Oceanography Center) zonal wind analyses. Other potential predictors considered are simple climatological parameters and persistence of intensification. The potential predictors are screened by a stepwise discriminant analysis program to determine which significantly discriminate between three (intensifying, filling, and neither) intensification categories. The best discriminators are then used as predictors in an intensification forecasting algorithm.

The algorithm is developed and tested on Western Pacific tropical cyclone data from the years 1974-82. In addition to the independent test, stability of the algorithm is investigated and a test is conducted to compare forecasts produced by the algorithm with forecasts made by JTWC (Joint Typhoon Warning Center) and with forecasts of persistence of intensification. The algorithm shows skill relative to persistence and compares favorably with the official forecasts, although most of the differences between the scores are not significant. For this data set, JTWC did not forecast tropical cyclone intensification significantly better than the derived algorithm or persistence.

TR 85-03, October 1985: Design Considerations for an Advanced Tropical Cyclone
Model -- R. Elsberry, M. Fiorino -- 152 pp.

A project planning meeting on dynamical tropical cyclone models was held January 3-4 1985 at NAVENVPREDRSCHFAC to guide development of a next-generation forecast model, or Advanced Tropical Cyclone Model (ATCM). The meeting was structured in three groups: an Operational group (OP) to provide forecast needs and real world constraints; a Numerical Aspects group (NUM) with expertise in the numerical modeling issues; and a Data Analysis and Initialization group (DAI) to guide the development of the data analysis and initialization component of the ATCM.

The OP group stated that an ATCM should provide the primary tropical cyclone track guidance in the 48-72 h range and that the model should predict wind distribution. It was emphasized that to achieve these goals successfully, the ATCM system must (1) analyze and predict synoptic-scale features adjacent to the tropical cyclone; (2) allow the user to specify the initial intensity and the horizontal and vertical structure of the tropical cyclone; (3) handle multiple storms; and (4) include topographic effects.

The NUM group recommended that the first version of the ATCM have uniform horizontal resolution (vice a two-way interactive, moving nested grid) of about 50 km, and a vertical resolution of about 10 layers. The domain size should be on the order of 9000 km (E-W) by 6000 km (N-S). Because the storm simulation ultimately will be governed by the physics in the model, it was recommended that a dynamical-physical interactive physics package be used with constraints to ensure a realistic representation of the vortex.

The DAL group agreed that the lack of an accurate and complete specification of the wind field in the environment of the tropical cyclone is in the primary restricting factor in the performance of the dynamical models. Although existing analysis techniques may be adequate, the initial humidity fields will need special treatment and the storm circulation should be specified with a model-generated "bogus" storm.

CR 85-01, February 1985: Assessment of the Performance of an In-Field Gaussian Plume/Puff Model for Overwater Use -- C. Skupniewicz, G. Schacher -- 54 pp.

A U.S. Navy chemical hazard forecast computer model is tested for consistency with Naval Postgraduate School field data which was used in its development. The model's attempt to forecast puff dispersion, for which a parameterization has not been developed, are examined by comparison to relative dispersion data sets. The parameterizations developed from the NPS data set are compared to an independently derived set of parameterizations demonstrating the generic applicability of the model. It was found that the model predicts the total width over which a hazard might occur reasonably well, but under-predicts the downwind hazard distance. This is due to lack of separate consideration of meander effects.

CR 85-02, February 1985: Accuracy and Operational Use of Medium and Extended Range Numerical Atmospheric Forecasts: A Review -- R. Elsberry, H. Hamilton, P. Petit - 84 pp.

The potential benefits of medium range (5-10 day) and extended range (10-15 day) atmospheric forecasts in support of the U.S. Navy are assessed. The present and likely near-future state of the art of medium range and extended range forecasting are surveyed, summarized, and related to specific operational requirements and applications of such forecasts. Conclusions regarding the required skill for longer-range forecasts are provided. Several issues relating to forecast system support at a central site, and to presentation, distribution and use of products, are presented.

CR 85-03, February 1985: Medium Range Atmospheric Forecast System: Evaluation Plan -- P. Petit, H. Hamilton, R. Elsberry -- 40 pp.

A plan for conducting a comprehensive evaluation of the accuracy and utility -- with respect to operational Navy applications -- of a medium range (5-10 day) atmospheric forecast system is presented. Detailed evaluation procedures for verification data collection and reduction for practical skill assessment are provided.

CR 85-04, February 1985: Medium Range Atmospheric Forecast System: Evaluation Report -- P. Petit, H. Hamilton, R. Elsberry -- 86 pp.

The results of a comprehensive evaluation of the accuracy and utility -- with respect to operational Navy applications -- of a medium range (5-7 day) atmospheric forecast system are presented. Several nonstandard, but operationally relevant, objective measures of forecast model skill are employed, along with more traditional measures. Summary conclusions and recommendations for future evaluations are provided.

CR 85-05, March 1985: Ship-To-Ship Propagation: Maritime Data Analyses -- J. Manning, J. Dowling, J. Hummel -- 130 pp.

An analysis of two sets of atmospheric optical and supporting meteorological data has been performed. The first data set was taken by an airborne differential absorption lidar (DIAL) system. From this data set, vertical water vapor density profiles were extracted and used to calculate transmittances for CW and pulsed DF lasers. Thermal blooming calculations also were made to compare the performance of a laser optimized using a standard atmosphere water vapor profile with a laser optimized using DIAL-derived profiles. The difference was found to be small for the conditions used here.

The second data set consisted of long-path atmospheric transmittance and radiosonde measurements made in support of a long focal length imaging demonstration (LFLID). Measured transmittances were compared with LOWTRAN 6 transmittance calculations. Good agreement was obtained in the 3-5 micrometer range. Comparisons for the 8-12 micrometer region showed calculated transmittances about a factor of 10 lower than measured values.

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